

REMARKS

Claims 17, 20 and 22-42 are pending. Claims 18, 19 and 21 are cancelled herein without prejudice or disclaimer. Claim 1 is amended herein. Support for the amendments is detailed below.

Applicants' Response to the Claim Rejections under 35 U.S.C. §103(a)

Claims 17, 20-22, 26, 27, 30-32 and 36 are rejected under 35 U.S.C. §103(a) as unpatentable over *JP '211* (JP 2003-103211) in view of *JP '768* (JP 2003-126768).

As detailed in the amendments above, applicants have incorporated the features of dependent claims 18 and 19 into parent claim 17. Wherefore, applicants respectfully submit that the rejection is now moot.

Claims 18, 19, 28 and 29 are rejected under 35 U.S.C. §103(a) as unpatentable over *JP '211* in view of *JP '768* as applied to claims above, and further in view of *JP '267* (JP 2002-331267).

In response thereto, applicants respectfully submit that the present invention as know claimed is not obvious in light of the combination of references for at least the reason that the combination does not provide for all the claimed features nor is there any reason prompting a skilled artisan to derive the present invention based on the combination.

Specifically, the combination does not provide for the features of claim 17 that: (A) the surface of the coating layer wherein the coating solution has a solid content of 55% by weight or less; (B) a viscosity of 20 mPa's or less; (C) dry wind having a wind speed of from 4 to 20 m/sec. and a scattering in the wind speed in the width direction of the film of $\pm 30\%$ or less as well as (D) a temperature of from 20 to 45°C and a scattering in the temperature in the width direction of the film of $\pm 15\%$ or less; and, (E) dry wind is directly blown along the traveling direction of the film. Further, there is no viable reason whereby a skilled artisan would derive these claimed parameters based on the combined teachings of the references.

First, the combination does not provide for (E) dry wind directly blown along the traveling direction of the film. The primary reference relied upon is JP '211 and the invention thereof cannot be modified in light of JP '768 and JP '267 to result in the claims invention. Specifically, the disclosure of JP '211 is related to a teaching that air conditioning within a processing facility, such as a clean room may have a damaging effect on a coating process, because the air flow from the indirect air conditioning disrupts the coating before entering the dryer 16. See paragraphs [0004]-[0005]. Hence, JP '211 limits the air flow from the air conditioning to a portion 14 of the web 12 directly after the coating 20 is performed. As seen in Fig. 1 of JP '211 the air flow must circumvent the shield to move into a channel created between the shield 22 and the web 12.

As such, the purpose of JP '211 is clearly distinct from utilizing a precisely directed blowing amount and direction in order to obtain homogeneous in-plane optically functional property such as set forth in the current application. See pages 8-9 of the specification.

As set forth in one possible embodiment described in the specification, a direct air flow from a nozzle 5 contacts the surface of the coating layer at a given angle 6 in the range of an air-blowing section 7.

As such, the combination at least does not provide for the feature of the present invention that dry wind is directly blown along the traveling direction of the film

Second, the combination of references does not provide for the combination of parameters of solid content (A), viscosity (B), speed (C) and temperature (D) as now set forth in claim 17. The rejection admits that JP '211 does not disclose the specific parameters of viscosity and solid content of the coating layer. For viscosity, it is asserted that this is a known result effecting variable which would be modified by a skilled artisan to obtain an optimum result, and in regard to the solid content percentage, it is asserts that JP '768 discloses a similar percentage and that a skilled artisan would have adopted this range to "obtain a useable and functional layer desired."

Further, regarding wind speed and temperature, the rejection of claim 18 acknowledges that the combination of JP '211 and JP '768 do not disclose the wind speed. Rather, the rejection cites to JP '267 which describes a wind speed for drying, per paragraph [0009]. The rejection concludes that it would have been obvious to include the specific wind speed and temperature of the blown dry wind for the purpose of optimizing the drying effect.

Under U.S. patent law as described in *Takeda v. Alphapharm* 492 F.3d 1350, 1356-1357; 83 USPQ2d 1169 (Fed. Cir. 2007):

While the *KSR* Court rejected a rigid application of the teaching, suggestion, or motivation ("TSM") test in an obviousness inquiry, the Court acknowledged the importance of identifying "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does" in an obviousness determination. *KSR*, 127 S. Ct. at 1731.

Further, under U.S. patent law, as quoted at M.P.E.P §2144.05, a particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

Even assuming the combination of JP '211, JP '267 and JP '768 a skilled artisan would not readily obtain the parameters of the present invention by utilizing a wind shield 22 such as that in JP '211 to level the coating layer; hence, nor would the claimed parameters be obtained by routine optimization, because in the current instance, the parameters are chosen to obtain the homogeneous in-plane optically functional property. Consequently there is no viable reason for a skilled artisan to derive the parameters as set forth in claim 17.

As detailed above, JP '211 is directed to a use of a wind shield 22 to provide limited exposure of a web 12 to air conditioning (room ventilation). There is no viable reason whereby a skilled artisan could discern adjusting the room ventilation and the wind shield so as to derive an optimized wind speed which overlaps with applicants' claimed speed to "optimize the drying effect."

In the current instance there is no recognition of the air speed from the air ventilation under the shield 22 of JP '211 as a result-effective variable for drying. JP '211 does not perform drying by the air ventilation but by a subsequent dryer 16. This dryer 16 is equivalent to the drying method and apparatus described within JP '267. Paragraph [0009] of JP '267 is describing a drying method within a drying apparatus 18 with three drying zones 60, 62, 64. As such there is no viable reason whereby a skilled artisan could derive adjusting the air ventilation and shield to control wind speed for drying of the web since this is clearly not the purpose of the shield 22 and the air ventilation.

Moreover, there is no other reason whereby a skilled artisan could derive the combination of the claimed parameters A to D above so as to derive a predictable result of optimizing the combination. Comparing the above referenced features (A to D) with the combination of JP '211, JP '768 and JP '267, the present invention is clearly distinct in that it satisfies all the above constituent features (A to D) as the conditions for directly blowing dry wind along the traveling direction of the film onto the surface of the coating layer whereas none of the cited references teaches toward the particularly claimed ranges of the parameters. Rather, each cited reference separately describes that, in the drying of the coating layer upon production of a coated sheet, the solid content, and the temperature and the wind speed of the dry wind are set within predetermined numerical ranges.

In other words, mere recognition of the solid content, and the temperature and the wind speed of the dry wind in each cited document does not lead a skilled artisan to an optimization of those parameters within the currently claimed ranges. This is because none of the cited

references recognize or teach toward the making of fine irregularities that cannot be visually observed on the surface of the coating layer as an optically functional layer, such as in the present invention. The present invention simultaneously satisfies the constituent features A to D and the effect of the present invention is obtained after such constituent features are functionally combined. The present invention lies in combining all such constituent features to derive a function which is not recognized by the art.

Namely, the present invention has the technical idea to produce the coated sheet in which the fine irregularities are formed on the coating layer by simultaneously satisfying all the constituent features A to D and as a result, improve the thickness precision of the coating layer and uniformize the optical function characteristics in the plane. As set forth in the current application, by satisfying all the constituent features A to D, the thickness precision of the coating layer as the optically functional layer can be improved even in a large area, and the in-plane uniformization of the optical function characteristics which is required in the optically functional layer can be realized.

The integrality and inseparableness of the constituent features A to D is shown in Comparative Examples 1 to 6 of the specification. Comparative Example 1 is a case where the constituent feature A is not satisfied. Comparative Example 2 is a case where the constituent feature B is not satisfied. Comparative Examples 3 and 6 are cases where the constituent feature D is not satisfied. Comparative Example 5 is a case where the constituent feature C is not satisfied.

Contrary, the combination of JP '211, JP '768 and JP '267 does not disclose formation of the fine irregularities and the effect of the present invention. Further, there are no teachings within the combined references which could lead a skilled artisan to a conclusion that "optimizing" the parameters towards applicant's claimed ranges would have this or any other positive (optimizing) result.

Wherefore, applicants respectfully submit that the present invention is not obvious in light of the combination of JP '211, JP '768 and JP '267.

Claims 23 and 33 are rejected under 35 U.S.C. §103(a) as unpatentable over *JP '211* in view of *JP '768* as applied to claims above, and further in view of *DE '280* (DE 4342280).

Claims 24, 25, 34 and 35 are rejected under 35 U.S.C. §103(a) as unpatentable over *JP '211* in view of *JP '768* as applied to claims above, and further in view of *DE '280* and *JP '799* (JP 2001-314799).

Applicants respectfully submit that by addressing the rejection of parent claim 17 as detailed above, likewise the rejection of claims 23-25 and 33-35 are addressed by nature of their dependency.

Application No. 10/563,865
Art Unit: 1792

Amendment under 37 C.F.R. §1.111
Attorney Docket No. 053537

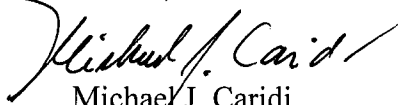
In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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